

SEQUENCE LISTING -- TAX [Bovine leukemia virus]

LOCUS AAF97920 309 aa  
ACCESSION AAF97920

## NUCLEOTIDE SEQUENCE (SEQ ID NO:2):

ATG GCA AGT GTT GTT GGT TGG GGG CCC CAC TCT CTA CAT GCC TGC CCG  
GCC CTG GTT TTG TCC AAT GAC GTC ACC ATC GAT GCC TGG TGC CCC CTC  
TGC GGG CCC CAT GAG CGA CTC CAA TTC GAA AGG ATC GAC ACC ACG CAC  
ACC TGC GAG ACC CAC CGT ATC ACC TGG ACC GCC GAT GGA CGA CCT TTC  
GGC CTC AAT GGA GCG CTG TTC CCT CGA CTG CAT GTC TCC AGA GAC CCG  
GCC CCA AGG GCC CGA CGA CTC TGG ATC AAC TGC CCC CTT CCG GCC GTT  
CGC GCT CAG CCC GGC CCG GTT TCA CTT TCC CCC TTC GAG CGG TCC CCC  
TTC CAG CCC TAC CAA TGC CAA TTG CCC TCG GCC TCT AGC GAC GGT TGC  
CCC GTC ATC GGG CAC GGC CTT CTT CCC TGG AAC AAC TTA GTA ACG CAT  
CCT TGT CCT CGG AAA GTC CTT ATA TTA AAT CAA ATG GCC AAT TTT TCC  
TTA CTC CCC CCC TTC AAT ACC CTC CTT GTG GAC CCC CTC CGG TTG TCC  
GTC TTT GCC CCA GAC ACC AGG GGA GCC ATA CGT TAT CTC TCC ACC CTT  
TTG ACG CTA TGC CCA GCT ACT TGT ATT CTA CCC CTC GGC GA GCC CTT  
CTC TCC TAA TGT CCC CAT ATG TCG CTT TCC CCG GGA CTC CAA TGA ACC  
CCC CCT TTC AGA ATT CGA GCT GCC CCT TAT CCA AAC GCC CGG CCT GTC  
TTG GTC TGT CCC CGC GAT CGA CCT ATT CCT AAC CGG CCC CCC TTC CCC  
ATG CGA CCG GTT ACA CGT ATG GTC CAG TCC TCA GGC CTT ACA GCG CTT  
CCT CCA TGA CCC TAC GCT AAC CTG GTC AGA ATT GGT TGC TAG CAG GAA  
ACT AAG ACT TGA TTC ACC CTT AAA ATT ACA ACT GTT AGA AAA TGA ATG  
GCT CTC CCG CCT TTT TTG

## PROTEIN SEQUENCE (SEQ ID NO:3)

MASVVGWGP HSLHACPALVLSNDVTIDAWCPLCGPHERLQFERIDTTHTCETHRITW  
TADGRPFGLNGALFPRLHVS RDPAPRARRLWINCPLPAVRAQPGPVSLSPFERSPF  
QPYQCQLPSASSDGCPVIGHGLLPWNNLVTHPCPRKVLILNQMANFSLPPFNLLV  
DPLRLSVFAPDTRGAIRYLSTLLTLC PATCILPLGEPFSPNVPICRFPRDSNEPPLSEF  
ELPLIQTPGLSWSVPAIDLFLTGPSPCDRLHWVSSPQALQRFLHDPTLTW  
SELVASRKLR LDSPLKLQ LLENEWLSRLF

**FIG. 3**

**SEQUENCE LISTING -- HTLV-1 Promoter sequence (SEQ ID NO:6)**

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1  TGACAATGAC CATGAGCCCC AAATATCCCC CGGGGGCTTA GAGCCTCTCA GTGAAAAACA
61  TTTCCGTGAA ACAGAAGTCT GAGAAGGTCA GGGCCCAGAA TAAGGCTCTG ACGTCTCCCC
121 CCGGAGGACA GCTCAGCACC AGCTCAGGCT AGGCCCTGAC GTGTCCCCCT AAAGACAAAT
181 CATAAGCTCA GACCTCCGGG AAGCCACCGG GAACCACCCA TTTCTCTCCC ATGTTTGTCA
241 AGCCGTCTTC AGGCGTTGAC GACAACCCCT CACCTCAAAA AACTTTTCAT GGCACGCATA
301 CGGCTCAATA AAATAACAGG AGTCTATAAA AGCGTGGGGA CAGTTCAGGA GGG
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**FIG. 4**

## SEQUENCE LISTING -- HTLV1 Tax Nucleic Acid (SEQ ID NO:4) and

## Protein sequence (SEQ ID NO:5)

1	ATG GCC CAC TTC CCA GGG TTT GGA CAG AGT CTT CTT TTC GGA TAC	45
1	Met Ala His Phe Pro Gly Phe Gly Gln Ser Leu Leu Phe Gly Tyr	15
46	CCA GTC TAC GTG TTT GGA GAC TGT GTA CAA GGC GAC TGG TGC CCC	90
16	Pro Val Tyr Val Phe Gly Asp Cys Val Gln Gly Asp Trp Cys Pro	30
91	ATC TCT GGG GGA CTA TGT TCG GCC CGC CTA CAT CGT CAC GCC CTA	135
31	Ile Ser Gly Gly Leu Cys Ser Ala Arg Leu His Arg His Ala Leu	45
136	CTG GCC ACC TGT CCA GAG CAT CAG ATC ACC TGG GAC CCC ATT GAT	180
46	Leu Ala Thr Cys Pro Glu His Gln Ile Thr Trp Asp Pro Ile Asp	60
181	GGA CGC GTT ATC GGC TCA GCT CTA CAG TTC CTT ATC CCT CGA CTC	225
61	Gly Arg Val Ile Gly Ser Ala Leu Gln Phe Leu Ile Pro Arg Leu	75
226	CCC TCC TTC CCC ACC CAG AGA ACC TCT AAG ACC CTC AAG GTC CTT	270
76	Pro Ser Phe Pro Thr Gln Arg Thr Ser Lys Thr Leu Lys Val Leu	90
271	ACC CCG CCA ATC ACT CAT ACA ACC CCC AAC ATT CCA CCC TCC TTC	315
91	Thr Pro Pro Ile Thr His Thr Thr Pro Asn Ile Pro Pro Ser Phe	105
316	CTC CAG GCC ATG CGC AAA TAC TCC CCC TTC CGA AAT GGA TAC ATG	360
106	Leu Gln Ala Met Arg Lys Tyr Ser Pro Phe Arg Asn Gly Tyr Met	120
361	GAA CCC ACC CTT GGG CAG CAC CTC CCA ACC CTG TCT TTT CCA GAC	405
121	Glu Pro Thr Leu Gly Gln His Leu Pro Thr Leu Ser Phe Pro Asp	135
406	CCC GGA CTC CGG CCC CAA AAC CTG TAC ACC CTC TGG GGA GGC TCC	450
136	Pro Gly Leu Arg Pro Gln Asn Leu Tyr Thr Leu Trp Gly Gly Ser	150
451	GTT GTC TGC ATG TAC CTC TAC CAG CTT TCC CCC CCC ATC ACC TGG	495
151	Val Val Cys Met Tyr Leu Tyr Gln Leu Ser Pro Pro Ile Thr Trp	165
496	CCC CTC CTG CCC CAC GTG ATT TTT TGC CAC CCC GGC CAG CTC GGG	540
166	Pro Leu Leu Pro His Val Ile Phe Cys His Pro Gly Gln Leu Gly	180
541	GCC TTC CTC ACC AAT GTT CCG TAC AAG CGA ATA GAA GAA CTC CTC	585
181	Ala Phe Leu Thr Asn Val Pro Tyr Lys Arg Ile Glu Glu Leu Leu	195
586	TAT AAA ATT TCC CTT ACC ACA GGG GCC CTA ATA ATT CTA CCC GAA	630
196	Tyr Lys Ile Ser Leu Thr Thr Gly Ala Leu Ile Ile Leu Pro Glu	210
631	GAC TGT TTG CCC ACC ACC CTT TTC CAG CCT GTT AGG GCA CCC GTC	675
211	Asp Cys Leu Pro Thr Thr Leu Phe Gln Pro Val Arg Ala Pro Val	225
676	ACG CTA ACA GCC TGG CAA AAC GGC CTC CTT CCG TTC CAC TCA ACC	720
226	Thr Leu Thr Ala Trp Gln Asn Gly Leu Leu Pro Phe His Ser Thr	240
721	CTC ACC ACT CCA GGC CTT ATT TGG ACA TTT ACC GAT GGC ACG CCT	765
241	Leu Thr Thr Pro Gly Leu Ile Trp Thr Phe Thr Asp Gly Thr Pro	255

FIG. 5

# Replacement Sheet

766	ATG	ATT	TCC	GGG	CCC	TGC	CCT	AAA	GAT	GGC	CAG	CCA	TCT	TTA	GTA	810
256	Met	Ile	Ser	Gly	Pro	Cys	Pro	Lys	Asp	Gly	Gln	Pro	Ser	Leu	Val	270
811	CTA	CAG	TCC	TCC	TCC	TTT	ATA	TTT	CAC	AAA	TTT	CAA	ACC	AAG	GCC	855
271	Leu	Gln	Ser	Ser	Ser	Phe	Ile	Phe	His	Lys	Phe	Gln	Thr	Lys	Ala	285
856	TAC	CAC	CCC	TCA	TTT	CTA	CTC	TCA	CAC	GGC	CTC	ATA	CAG	TAC	TCT	900
286	Tyr	His	Pro	Ser	Phe	Leu	Leu	Ser	His	Gly	Leu	Ile	Gln	Tyr	Ser	300
901	TCC	TTT	CAT	AAT	TTA	CAT	CTC	CTG	TTT	GAA	GAA	TAC	ACC	AAC	ATC	945
301	Ser	Phe	His	Asn	Leu	His	Leu	Leu	Phe	Glu	Glu	Tyr	Thr	Asn	Ile	315
946	CCC	ATT	TCT	CTA	CTT	TTT	AAC	GAA	AAA	GAG	GCA	GAT	GAC	AAT	GAC	990
316	Pro	Ile	Ser	Leu	Leu	Phe	Asn	Glu	Lys	Glu	Ala	Asp	Asp	Asn	Asp	330
991	CAT	GAG	CCC	CAA	ATA	TCC	CCC	GGG	GGC	TTA	GAG	CCT	CCC	AGT	GAA	1035
331	His	Glu	Pro	Gln	Ile	Ser	Pro	Gly	Gly	Leu	Glu	Pro	Pro	Ser	Glu	345
1036	AAA	CAT	TTC	CGC	GAA	ACA	GAA	GTC	TGA							1070
346	Lys	His	Phe	Arg	Glu	Thr	Glu	Val	TRM							354

**FIG. 5 (Cont.)**

## Replacement Sheet

### SEQUENCE LISTING -- HIV Promoter sequence (SEQ ID NO:7)

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1  CTGGAAGGGC TAATTTGGTC CCAAAGAAGA CAAGAGATCC TTGATCTGTG GATCTACCAC
61 ACACAAGGCT ACTTCCCTGA TTGGCAGAAT TACACACCAG GGCCAGGGAT CAGATATCCA
121 CTGACCTTTG GATGGTGCTT CAAGCTAGTA CCAGTTGAGC CAGAGAAGGT AGAAGAGGCC
181 AATGAAGGAG AGAACAACAG CTTGTTACAC CCTATGAGCC TGCATGGGAT GGAGGACGCG
241 GAGAAAGAAG TGTTAGTGTG GAGGTTTGAC AGCAAAC TAG CATTTCATCA CATGGCCCGA
301 GAGCTGCATC CGGAGTACTA CAAAGACTGC TGACATCGAG CTTTCTACAA GGGACTTTCC
361 GCTGGGGACT TTCCAGGGAG GCGTGGCCTG GGCGGGACTG GGGAGTGGCG TCCCTCAGAT
421 GCTGCATATA AGCAGCTGCT TTTTGCCTGT ACTGGG
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**FIG. 6**



## Replacement Sheet

### SEQUENCE LISTING – HIV Tat nucleic acid (SEQ ID NO:8) and amino

### acid (SEQ ID NO:9) of HIV Tat.

1	ATG GAG CCA GTA GAT CCT AAT CTA GAG CCC TGG AAG CAT CCA GGA	45
1	Met Glu Pro Val Asp Pro Asn Leu Glu Pro Trp Lys His Pro Gly	15
46	AGT CAG CCT AGG ACT GCT TGT AAC AAT TGC TAT TGT AAA AAG TGT	90
16	Ser Gln Pro Arg Thr Ala Cys Asn Asn Cys Tyr Cys Lys Lys Cys	30
91	TGC TTT CAT TGC TAC GCG TGT TTC ACA AGA AAA GGC TTA GGC ATC	135
31	Cys Phe His Cys Tyr Ala Cys Phe Thr Arg Lys Gly Leu Gly Ile	45
136	TCC TAT GGC AGG AAG AAG CGG AGA CAG CGA CGA AGA GCT CCT CAG	180
46	Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro Gln	60
181	GAC AGT CAG ACT CAT CAA GCT TCT CTA TCA AAG CAA CCC GCC TCC	225
61	Asp Ser Gln Thr His Gln Ala Ser Leu Ser Lys Gln Pro Ala Ser	75
226	CAG TCC CGA GGG GAC CCG ACA GGC CCG ACG GAA TCG AAG AAG AAG	270
76	Gln Ser Arg Gly Asp Pro Thr Gly Pro Thr Glu Ser Lys Lys Lys	90
271	GTG GAG AGA GAG ACA GAG ACA GAT CCG TTC GAT TAG	306
91	Val Glu Arg Glu Thr Glu Thr Asp Pro Phe Asp TRM	102

**FIG. 7**